

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An automated and robotized platform ~~comprising~~ including a battery of micro-fermentors having a useful culture volume ranging from 2 mL to 500 mL[.], each ~~containing~~ configured to contain a cell culture, the robotized platform comprising:

~~an external sensor for measuring at least~~ configured to measure an optical property of each cell culture contained in each micro-fermentor; ~~wherein~~, the external sensor ~~includes~~ including a turbidity-measuring sensor, the turbidity-measuring sensor including an emitting diode and a receiving diode;

~~a mobile sensor holder~~ able configured to receive the external sensor, the mobile sensor holder ~~comprising~~ including a sensor moving ~~means for moving~~ element configured to move the external sensor from ~~a micro-fermentor~~ one of the micro-fermentors to another [[one]] of the micro-fermentors and ~~for allowing for~~ to allow the real time measurement of said at least one the optical property;

~~a monitoring and processing~~ means for receiving element configured to receive, in real time measurements, [[of]] the optical property from the external sensor and ~~monitoring to~~ monitor, in real time, a movement of the mobile sensor holder, and

~~a system for regulating~~ configured to regulate a temperature of each micro-fermentor including a Peltier effect autonomous regulating system, the regulation of the temperature by Peltier effect being independent and programmable for each micro-fermentor, at a temperature range of -5°C to 80°C.

2. (Cancelled)

3. (Currently Amended) [[A]] The robotized platform according to claim 1, further comprising at least a second external sensor arranged on the mobile sensor holder.

4. (Currently Amended) [[A]] The robotized platform according to claim 1, wherein the external sensor [[is an]] is configured as an absorbency, [[or]] fluorescence, [[or]] luminescence, [[or]] phosphorescence, or colorimetry sensor, or [[any]] as other sensor measuring an electromagnetic radiation.

5. (Currently Amended) [[A]] The robotized platform according to any of claims 1 to 4, wherein the sensor moving means comprise element includes either either at least one mobile carriage arranged on at least one linear rail, a stepper motor, a driving system connecting the motor with the carriage, and a monitoring element connected with the stepper motor and being configured to ensure linear movement of the mobile carriage; or

[[one]] an arm or any other another system allowing for configured to allow a circular movement and a monitoring element connected to the arm or the another system configured to ensure circular movement of the arm or the another system; and monitoring means connected with the motor ensuring the movement of said carriage according to a linear or circular movement.

6. (Currently Amended) [[A]] The robotized platform according to claim 1, further comprising a sampling and injecting system arranged on a mobile support and preferably connected with a moving system, either independent from or integral with the mobile sensor holder.

7-8. (Canceled).

9. (Currently Amended) A method for automatically measuring ~~at least one~~ an optical property of cell cultures contained within a battery of micro-fermentors ~~micro-fermentor~~ having a useful culture volume ranging from 2 mL to 500 mL ~~battery~~, wherein the temperature of each micro-fermentor is independently programmable and regulated by Peltier effect at a range of -5°C to 80°C, comprising:

[[-]] measuring, automatically, ~~at least one~~ the optical property of a culture contained within one of the micro-fermentors via an external sensor; ~~wherein~~, the external sensor includes including a turbidity-measuring sensor, the turbidity-measuring sensor including an emitting diode and a receiving diode;

[[-]] moving, in a robotized way, the external sensor towards another micro-fermentor[[,]]; and [[-]]

measuring, automatically, at least one optical property of a culture contained within the another micro-fermentor via the external sensor.

10. (Currently Amended) [[A]] The method according to claim 9, further comprising injecting/sampling in ~~a micro-fermentor~~ the one of the micro-fermentors as a function of [[the]] a measurement value of the optical property.

11. (Currently Amended) [[A]] The robotized platform according to claim 1, wherein the battery of micro-fermentors is configured being able to produce cell cultures.

12. (Currently Amended) [[A]] The robotized platform according to claim 1, wherein the battery of micro-fermentors is configured being able to optimize cell culture methods.

13. (Currently Amended) [[A]] The robotized platform according to claim 11,
wherein the battery of micro-fermentors is configured to allow being able to make the
analysis of gene expression mechanisms.

14. (Currently Amended) [[A]] The robotized platform according to claim 13,
wherein the battery of micro-fermentors is configured to allow analysis of the genes are genes
involved in cell adherence mechanisms.

15. (Currently Amended) [[A]] The robotized platform according to claim 1, wherein
the battery of micro-fermentors is configured to allow being able to study of physical and
physicochemical mechanisms.

16. (New) An automated and robotized platform including a battery of micro-fermentors having a useful culture volume ranging from 2 mL to 500 mL, each configured to contain a cell culture, the robotized platform comprising:

an external sensor configured to measure an optical property of each cell culture contained in each micro-fermentor, the external sensor including a turbidity-measuring sensor configured to measure turbidity, the turbidity-measuring sensor including an emitting diode and a receiving diode;

means for moving the external sensor from one of the micro-fermentors to another of the micro-fermentors and for allowing real time measurement of said at least one optical property;

means for monitoring and processing, in real time measurements, the optical property from the external sensor and for monitoring, in real time, a movement of the mobile sensor holder, and

means for regulating a temperature of each micro-fermentor including a Peltier effect autonomous regulating system, the regulation of the temperature by Peltier effect being independent and programmable for each micro-fermentor, at a range of -5°C to 80°C.

17. (New) The robotized platform according to claim 6, wherein the sampling and injecting system is configured to increase O₂ concentration or to inject solutions configured to regulate pH in response to a measurement of the optical property.

18. (New) The robotized platform according to claim 1, wherein the turbidity-measuring sensor is configured to make optical density measurements in a range of 0.05 OD to 300 OD.